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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,260

02/19/2004

Lowell A. Rathbun JR.

7708 US

7312

7590

05/02/2006

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EXAMINER

VUONG, QUOCHIE B

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/783,260	Applicant(s) RATHBUN, LOWELL A.	
	Examiner Quochien B. Vuong	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3/1 is/are rejected.
- 7) ☒ Claim(s) 2 and 3/2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/19/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 02/19/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3/1 (claim 3 which depends on claim 1) are rejected under 35 U.S.C. 102(b) as being anticipated by Turl et al. (Us 4,728,906).

Regarding claim 1, Turl et al. (figure 6) disclose a high frequency sweep generator using a high frequency tunable oscillator (10) having a coarse tune port (from 16) and a fine tune port (from 18) for producing a linear swept high frequency signal comprising: means for digitally generating a controllable linear ramp sweep signal for coupling to the coarse tune port (102) (column 12, lines 34-40); and means for generating from the swept high frequency signal an error correction signal for coupling to the fine tune port that compensates for non-linearities in the linear swept high frequency signal (column 12, line 41- column 13, line 2).

Regarding claim 3/1, Turl et al. disclose wherein the controllable linear ramp sweep signal digital generating means comprises: a programmable accumulator clocked by a sweep clock and having a sweep time increment as input to produce a sweep ramp signal during a sweep time and a retrace time increment as input to produce a retrace signal during a retrace time, the sweep ramp signal and retrace signal producing the controllable linear ramp sweep signal; and means for controlling the sweep clock in response to a trigger signal to produce the controllable linear ramp sweep signal from the sweep ramp signal and the retrace signal (column 12, line 3 – column 13, line 2).

***Allowable Subject Matter***

4. Claims 2 and 3/2 (claim 3 which depends on claim 2) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 2, Turl et al. disclose the high frequency sweep generator of claim 1 above. However, Turl et al. fail to teach or fairly suggest wherein the error correction generating means comprises: a direct digital frequency synthesizer for generating a linear, frequency ramped sinusoid; and a phase locked loop having as inputs the linear, frequency ramped sinusoid and the swept high frequency signal and producing as an output the error correction signal.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Camp, Jr. et al. (US 5,179,725) disclose voltage controlled oscillator with correction of tuning curve non-linearities.

Casper et al. (US 5,838,749) disclose method and apparatus for extracting an embedded clock from a digital data signal.

Scheffold (US 6,118,345) discloses process and device for locking-in a YIG-tuned oscillator.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Quochien B. Vuong".

QUOCHIEN B. VUONG  
PRIMARY EXAMINER

Quochien B. Vuong  
Apr. 28, 2006.